

Title (en)

PROCESSES AND SYSTEMS FOR FORMATION OF RECYCLE-CONTENT HYDROCARBON COMPOSITIONS

Title (de)

VERFAHREN UND SYSTEME ZUR HERSTELLUNG VON KOHLENWASSERSTOFFZUSAMMENSETZUNGEN MIT REZYKLATGEHALT

Title (fr)

PROCÉDÉS ET SYSTÈMES DE FORMATION DE COMPOSITIONS D'HYDROCARBURES À CONTENU DE RECYCLAGE

Publication

**EP 4051769 A4 20240320 (EN)**

Application

**EP 20882795 A 20201029**

Priority

- US 201962928478 P 20191031
- US 2020057837 W 20201029

Abstract (en)

[origin: WO2021087028A1] Processes and systems for making recycle content hydrocarbons, including olefins, from recycled waste material. Recycle waste material may be pyrolyzed to form recycle content pyrolysis oil composition (r-pyoil), at least a portion of which may then be cracked to form a recycle content olefin composition (r-olefin). The r-olefin may then be further separated into product streams in a separation zone downstream of the cracker furnace. In some cases, presence of recycle content hydrocarbons may facilitate more efficient operation of one or more distillation columns in the separation zone, including the debutanizer.

IPC 8 full level

**C10G 55/02** (2006.01); **C10G 1/00** (2006.01); **C10G 7/00** (2006.01)

CPC (source: EP KR US)

**C07C 7/04** (2013.01 - KR); **C07C 11/02** (2013.01 - KR); **C10G 1/002** (2013.01 - EP KR US); **C10G 1/10** (2013.01 - EP KR US); **C10G 7/00** (2013.01 - EP KR US); **C10G 9/20** (2013.01 - EP KR US); **C10G 2300/1003** (2013.01 - KR US); **C10G 2400/20** (2013.01 - EP KR US)

Citation (search report)

- [X] US 2016264874 A1 20160915 - NARAYANASWAMY RAVICHANDER [IN], et al
- [X] US 2019177626 A1 20190613 - RAMAMURTHY KRISHNA KUMAR [IN], et al
- [X] SIMON C.M ET AL: "Pyrolysis of polyolefins with steam to yield olefins", JOURNAL OF ANALYTICAL AND APPLIED PYROLYSIS, vol. 38, no. 1-2, 1 December 1996 (1996-12-01), NL, pages 75 - 87, XP093084219, ISSN: 0165-2370, DOI: 10.1016/S0165-2370(96)00950-3
- [I] "Ullmann's Encyclopedia of Industrial Chemistry", 15 April 2009, WILEY-VCH VERLAG, Weinheim, ISBN: 978-3-52-730673-2, article HEINZ ZIMMERMANN ET AL: "Ethylene", XP055007506, DOI: 10.1002/14356007.a10\_045.pub3
- See also references of WO 2021087028A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**WO 2021087028 A1 20210506**; CN 114867826 A 20220805; EP 4051769 A1 20220907; EP 4051769 A4 20240320; KR 20220092563 A 20220701; US 2022403254 A1 20221222

DOCDB simple family (application)

**US 2020057837 W 20201029**; CN 202080076529 A 20201029; EP 20882795 A 20201029; KR 20227018120 A 20201029; US 202017755344 A 20201029